

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE <div style="text-align: center;">J</div>		PAGE OF PAGES <div style="display: flex; justify-content: space-between;"><div>1</div><div>7</div></div>	
2. AMENDMENT/MODIFICATION NO. <div style="text-align: center;">0001</div>		3. EFFECTIVE DATE <div style="text-align: center;">28-Feb-2003</div>		4. REQUISITION/PURCHASE REQ. NO. <div style="text-align: center;">W16ROE-3008-1158</div>		5. PROJECT NO.(If applicable)	
6. ISSUED BY USA ENGINEER DISTRICT, NEW YORK ATTN: CENAN-CT ROOM 1843 26 FEDERAL PLAZA (DACW51) NEW YORK NY 10278-0090		CODE <div style="text-align: center;">DACW51</div>		7. ADMINISTERED BY (If other than item 6) <div style="text-align: center; font-weight: bold;">See Item 6</div>			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)				X		9A. AMENDMENT OF SOLICITATION NO. DACW51-03-B-0006	
				X		9B. DATED (SEE ITEM 11) 31-Jan-2003	
						10A. MOD. OF CONTRACT/ORDER NO.	
						10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input checked="" type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The purpose of this amendment is to change the due date for receipt of bids from 05 March 2003 at 10:00 AM to 12 March 2003 at 10:00 AM and to incorporate the attached changes in the plans and specifications. This amendment also answers questions received. Clause 252.236-7006 (Cost Limitations) has been removed. All other terms remain unchanged as a result of this amendment. NOTE: Bidders must acknowledge receipt of this amendment by the date specified in the solicitation (or as amended) by one of the following methods: in the space provided on the SF 1442, by separate letter, or by telegram, or by signing block 15 below. FAILURE TO ACKNOWLEDGE AMENDMENTS BY THE DATE AND TIME SPECIFIED MAY RESULT IN REJECTION OF YOUR BID IN ACCORDANCE WITH THE LATE BID, LATE MODIFICATIONS OF BIDS OR LATE WITHDRAWAL OF BIDS (FAR 14.304). Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				TEL: _____ EMAIL: _____			
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 27-Feb-2003	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text:

BID BOND REQUIREMENT

Note New Requirement: Bonds, Powers of Attorney, statements of authenticity and continuing validity, and all related documents MUST NOT bear computer printer generated signatures and/or seals. Documents bearing signatures and/or seals generated as part of a document, as opposed to being affixed to the document AFTER its generation, will not be accepted. Submission of such documents may render the bid or offer non-responsive and ineligible for award. Please review all bonds and accompanying documents required to be submitted.

SECTION 00100 - BIDDING SCHEDULE/INSTRUCTIONS TO BIDDERS

The following have been added by full text:

AMENDMENT 1**NOTICE TO BIDDERS**

Failure of the bidder to
Acknowledge receipt of
this Amendment in
Item 19 of Standard Form
1442 (Pg. 00010-2) may
result in REJECTION of
the bid.

IFB NO. DACW51-03-B-0006

Amendment No. 1

Department of the Army, NYD
Corps of Engineers
New York, NY 10278-0090

AMENDMENT NO. 1 TO SPECIFICATIONS FOR MCKEEL BROOK FLOOD CONTROL CONSTRUCTION
PROJECT, NEW JERSEY

TO BIDDERS

The required response date/time has changed from 5 March 2003 at 10:00 AM to 12 March 2003 at 10:00 AM.

1. Specification: Add Specification Section 00902 Boring Logs
2. Plan Sheets No. ST-1, ST-2 and ST-4: All references to sheets ST-8, ST-9 and ST-10 deleted and revised. Details added to sheet ST-4.

Questions and Answers (For Information Only)

Note: Offerors must provide all questions not later than 7 March 2003, after which the project will have to be bid as is.

1. The Boring Logs have not been included with the original specifications. Will they be distributed via amendment?

Response: The Boring Logs have been included under Specification Section 00902 – Boring Logs.

2. Sheet ST-1 refers to sheets ST – 8, 9 & 10. These have not been included in the set. Please clarify.

Response: All references to sheets ST-8, ST-9 and ST-10 have been deleted and revised.

3. Item 0004 on the pricing sheets. Section 00800, paragraph 41 is not in our Specification. Please clarify.

Response: Section 00800, paragraph 41 (Insurance Procured by Contractor) is located in Specification Section 00800.

4. Specification Section 00901, Subsection 609: The Specifications as related to the gabions were vague. It is uncertain whether welded mesh gabions or woven mesh gabions are required. The specs call for black color PVC coating, confirm this since the industry standard is gray.

Response: Woven mesh gabions with gray PVC coating are fine since they do blend better with typical stone color.

5. Sheet ST-1, Note #4. The significance of this note is somewhat obscure. Please clarify.

Response: While clarification of which note 4 was not specified (there are 3 on the dwg.), we have assumed clarification of General Note 4 regarding fence posts is desired. Note 4 specifies that 6" of concrete shall be provided between the bottom of the fence post and the top of the 53"x88" storm pipe. Per the Fence Post/Anchoring Detail on sheet ST-5, the minimum fence post embedment length is 1'-6". The 6" of concrete between the post and pipe gives the 2' dimension specified in note 4.

6. Sheet C-4. Where is section A-A taken? Please advise

Response: Section A-A is taken at approximate station 29+85, perpendicular to the gabion weir.

7. Sheet C-8. Are both the detention fence and silt fence existing?
Is the height of the two 4' wide weirs the same as the height of the 8' weir?
The trash rack is not the same as that noted on C-7. Please clarify.

Response: Sheet C-8: The fences should be called out as "Temporary Sediment Fence" & "Temporary Silt Fence" as shown on sheet C-7. Both are to be installed by the contractor during construction. The 4' wide weirs are at the same elevation as the 8' wide weir. Sheet C-7: The Trash Rack Detail on sheet C-7 applies to sheet C-8 also.

8. Sheets G-1 and R-1. The 4" concrete sidewalk on G -1 lists no reinforcing.
The 4" sidewalk on R-1 is noted as reinforced. Please clarify.

Response: The word "reinforced" should be deleted from the 4" concrete sidewalk callouts on sheets R-1 thru R-4. Welded wire fabric reinforcing should be installed in accordance with the Concrete Sidewalk and Driveway Apron Details on sheet D-4.

9. There is an overflow branch culvert at Belmont and Nelson Street. Does this area get cleaned along with main culvert to the Rockaway River as per contract?

Response: No.

10. Are the open streambeds classified as culverts and do they get cleaned as well, if so what areas do, please advise.

Response: No.

11. Are overnight road closures allowed, to facilitate work of main culvert, and if so what kind of access would be needed for fire and safety and ambulance at Berry and Elm Streets?

Response: See response to question number 18.

12. The road width at Berry and Elm Sts are approx 34 ft. When main culvert is being installed the excavation is 8 ft deep x 24 feet wide + or -. Is sloping permitted to facilitate work without sheeting?

Response: See response to question number 19.

13. Have the utility companies been notified regarding the bid date for scheduling purposes?

Response: See response to question numbers 14 and 15.

14. Who is responsible for installing the gas main?

Response: NJ Natural Gas Co. We worked out the relocation plan with them during the design stage and they are on board with the scheme.

15. If gas main is installed by others, when will the gas main be installed? There seem to be some conflicts between the existing gas main and the new sanitary line.

Response: Scheduling will have to be coordinated with Gas company and incorporated into the contractor's overall project schedule (they need 4 weeks notice). Ideally, the gas main relocations would be done before the contractor mobilizes on-site.

16. At what elevation should the new water main be installed?

Response: The water main should be installed at 4 ft. minimum cover. The water main profile is shown on sheets P-4 thru 6.

17. Can the new water main be installed below the culvert to allow for the necessary cover when installing the culvert? (In some locations the new water main is only 4 ft away from the edge of the culvert. With the pressure on the main, there isn't enough cover for protection of the water main from a blowout)

Response: The water main should be installed as shown on sheets C-1 thru 4 and P-4 thru 6. All new water main shall be 100% fully restrained joint pipe with mechanical joint fittings and valves with Mega-Lug, or approved equal retainer glands. Connections to existing mains shall be restrained with tie rods.

18. The specifications state that the road must be open each night. What about during culvert installation? Are roads allowed to be closed at night during culvert installation?

Response: A maximum trench length of 50 feet to remain open overnight during the culvert installation. The open trench shall be properly barricaded and fenced. The intent is to maintain resident access to each home along Berry & Elm Streets throughout the work. The roads will be closed to through traffic during this time.

19. There is a note that temporary sheeting is shown on drawing C-4, but none is shown? Where is temporary sheeting to be placed?

Response: The contractor shall determine where any temporary sheeting may be required based on the work required and area available as shown on the plans.

20. What kind of cleaning method will be used to clean the existing McKeel Brook Culvert from the upstream terminus immediately south of Berry Street downstream to the Rockaway River?

Response: The specific means and methods used to perform work are up to the contractor. There are dual access manholes located along the length of the existing culvert similar to that specified for the proposed extension.

21. According to plant schedule on drawing C-2 American holly planting quantity is one, but plan shows four. Which one we will be using?

Response: Four.

22. What is the size and type of precast concrete culvert section between Type VII and Type V?

Response: None, the two connect to each other. See Type V Precast Section Detail on sheet ST-3.

23. According to Note-3 on Drawing ST-1, all precast concrete culvert units shall be given two coats of epoxy waterproofing in the shop, but drawing ST-2 shows Type IX and Type VI culvert sections will be field applied waterproofed. Is field applied waterproofing required on the job site at all?

Response: Waterproofing is to be field applied to Types IX & VI because they are cast-in-place sections. All Precast sections shall be shop coated.

24. Is there any need for protection board installation over the membrane waterproofing? No info provided in the specs and drawings.

Response: Fill can be placed directly on the membrane waterproofing. Specifications for the membrane waterproofing are in the Standard Specifications.

25. According to Note-20 on Drawing G-1, all trench paving shall be performed on weekly basis. We think that this work will be performed with total street paving. Please need your comment.

Response: Two paving operations are anticipated: trench width (i.e. temporary) paving for utilities installed in advance of the culvert installation & roadway regrading; and full width roadway (i.e. permanent) paving following culvert installation & roadway regrading.

Temporary pavement:

- Provide temporary riding surface and control dust during construction.
- 2" FABC Mix I-5 over 6" DGA, place flush with existing grade.
- Completely replace with permanent pavement.

Permanent pavement:

4" Bituminous Stabilized Base Course Mix I-2 over 6" DGA, place 2" below proposed roadway grade.

Pavement ramps to driveways and around utility castings to be provided during settlement period.

2" FABC Mix I-5 to be placed to proposed grade after settlement period as directed by the contracting officer.

26. According to Note-20 on Drawing G-1, all excavations shall be backfilled on a daily basis and reopened to traffic every night. We think that this method will increase the duration of the project. Are there any alternate methods to be used?

Response: See response to question number 18.

27. This Amendment shall be attached to the specifications and shall be a part thereof.

SECTION 00700 - CONTRACT CLAUSES

The following have been added by full text:

252.219-7010 ALTERNATE A (JUN 1998)

(a) Offers are solicited only from small business concerns expressly certified by the Small Business Administration (SBA) for participation in the SBA's 8(a) Program and which meet the following criteria at the time of submission of offer--

(1) The Offeror is in conformance with the 8(a) limitation set forth in its approved business plan; and

(2) The Offeror is in conformance with the Business Activity Targets set forth in its approved business plan or any remedial action directed by the SBA.

(b) By submission of its offer, the Offeror represents that it meets all of the criteria set forth in paragraph (a) of this clause.

(c) Any award resulting from this solicitation will be made directly by the Contracting Officer to the successful 8(a) offeror selected through the evaluation criteria set forth in this solicitation.

(d)(1) Agreement. A small business concern submitting an offer in its own name agrees to furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States. The term "United States" includes its territories and possessions, the Commonwealth of Puerto Rico, the trust territory of the Pacific Islands, and the District of Columbia. If this procurement is processed under simplified acquisition procedures and the total amount of this contract does not exceed \$25,000, a small business concern may furnish the product of any domestic firm. This subparagraph does not apply in connection with construction or service contracts.

(2) The [insert name of SBA's contractor] will notify the US Army Corps of Engineer, NY District. Contracting Officer in writing immediately upon entering an agreement (either oral or written) to transfer all or part of its stock or other ownership interest to any other party.

(End of clause)

(End of Summary of Changes) this page is blank

SECTION 00902 – BORING LOGS

ROUTE:		LOCAL NAME: McKee Brook Culvert Extension				BORING NO. B-1			
SECTION:		Town of Dover & Rockaway Township, Morris County, NJ				FIELD BORING NO.			
STATION:		OFFSET:		REFERENCE LINE:		GROUND ELEVATION: 568.1 ±			
BORING BY: Craig Test Boring				DATE STARTED: 5-19-00		GROUND WATER			
INSPECTOR: Charles Linke				DATE COMPLETED: 5-19-00		0 Hr. 8.5 ft. deep		Date: 5-19-00	
						24 Hr.		Date:	

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH	Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
				0 / 6	6 / 12	12 / 18			
	Auger								
	↓	S-1	1	2.5	13	14	6	18"	Dark gray m(-)-f SAND, some Silt
5									
		S-2	5	6.5	8	9	7	1"	Proposed Bottom of Culvert Shb El. 562.5 Gray-white c GRAVEL, trace m-f Sand
10									
		S-3	10	11.5	8	5	5	12"	Brown c-f SAND, trace Silt
15									
		S-4	15	16.5	4	6	8	4"	Orange-brown c-m GRAVEL, little c-f Sand, trace Silt
20									Bottom of Hole 16.5 ft.
25									
30									
35									
40									Note: 6 in. of asphalt at surface

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1 1/2 in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

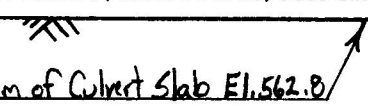
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The subsurface information shown hereon was obtained for the Owner's design and estimate purposes. It is made available to authorized users only that they may have access to the same information available to the Owner. It is presented in good faith, but is not intended as a substitute for investigations, interpretation or judgement of such authorized users.

Approximate Change in Strata

Inferred Change in Strata

ROUTE:		LOCAL NAME: McKeel Brook Culvert Extension				BORING NO. B-2			
SECTION:		Town of Dover & Rockaway Township, Morris County, NJ				FIELD BORING NO.			
STATION:		OFFSET:		REFERENCE LINE:		GROUND ELEVATION: 569.0 ±			
BORING BY: Craig Test Boring				DATE STARTED: 5-19-00		GROUND WATER 0 Hr. Date: 24 Hr. Date:			
INSPECTOR: Charles Linke				DATE COMPLETED: 5-19-00					

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH			Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
						0 / 6	6 / 12	12 / 18			
5	Auger										
	↓	S-1	1	2.5	3	4	2	15"	Orange-brown & brown f SAND, and Silt, trace f Gravel		
10		S-2	5	6.5	18	45	92	8"	Brown & gray c-f GRAVEL, some c-f Sand, trace Silt		
									 Proposed Bottom of Culvert Slab El. 562.8		
15		S-3	10	11.5	25	23	12	8"	Gray c-f SAND, little c-f Gravel, little Silt		
20		S-4	15	16.5	10	9	9	8"	Gray c-f SAND, little m-f Gravel, trace Silt		
									Bottom of Hole 16.5 ft.		
25											
30											
35											
40											

Note: 6 in. of asphalt at surface

Nominal I.D. of Auger 4 in.

Nominal I.D. of Split Barrel Sampler 1 1/2 in.

Weight of Hammer on Drive Pipe NA

Weight of Hammer on Split Barrel 140 lb.

Drop of Hammer on Drive Pipe NA

Drop of Hammer on Split Barrel 30 in.

Core Size NA

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Approximate Change in Strata

Inferred Change in Strata

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

ROUTE: LOCAL NAME: McKeel Brook Culvert Extension BORING NO. B-3
 SECTION: Town of Dover & Rockaway Township, Morris County, NJ FIELD BORING NO.
 STATION: OFFSET: REFERENCE LINE: GROUND ELEVATION: 570.0 ±

BORING BY: Craig Test Boring DATE STARTED: 5-19-00

INSPECTOR: Charles Linke DATE COMPLETED: 5-19-00

GROUND WATER
 0 Hr. 7.5 ft. deep Date: 5-19-00
 24 Hr. Date:

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH	Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
				0 / 6	6 / 12	12 / 18			
5	Auger							Brown, black & orange-brown c-f SAND, little Silt, trace f Gravel	
	↓	S-1	1	2.5	3	4	3		
10		S-2	5	6.5	17	19	24	Gray c-f GRAVEL, little c-f Sand, trace Silt <i>Proposed Bottom of Culvert Slab EL. 563</i>	
15		S-3	10	11.5	16	21	18	SAME	
20		S-4	15	16.5	14	18	13	Dark gray c-f GRAVEL, little(+) c-f Sand Bottom of Hole 16.5 ft.	
25									
30									
35									
40								Note: 6 in. of asphalt at surface	

Nominal I.D. of Auger 4 in.

Nominal I.D. of Split Barrel Sampler 1½ in.

Weight of Hammer on Drive Pipe NA

Weight of Hammer on Split Barrel 140 lb.

Drop of Hammer on Drive Pipe NA

Drop of Hammer on Split Barrel 30 in.

Core Size NA

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Approximate Change in Strata

Inferred Change in Strata

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

ROUTE: LOCAL NAME: McKeel Brook Culvert Extension BORING NO. B-4
 SECTION: Town of Dover & Rockaway Township, Morris County, NJ FIELD BORING NO.
 STATION: OFFSET: REFERENCE LINE: GROUND ELEVATION: 571.4 ±

BORING BY: Craig Test Boring DATE STARTED: 5-19-00

INSPECTOR: Charles Linke DATE COMPLETED: 5-19-00

GROUND WATER
 0 Hr. Caved & dry 7 ft. deep Date: 5-19-00
 24 Hr. Date:

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH	Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
				0 / 6	6 / 12	12 / 18			
5	Auger								
	↓	S-	1	2.5	10	6	3	NR	
10		S-1	5	6.5	19	30	78	18"	Orange-brown c-f SAND, little(+) m-f Gravel, trace Silt
									Proposed Bottom of Culvert Slab EL. 563.7
15		S-2	10	11.5	37	25	19	10"	Gray c-f GRAVEL, some c-f Sand, trace Silt
20		S-3	15	16.5	13	18	14	5"	Brown c-f GRAVEL, some c-f Sand, trace Silt
									Bottom of Hole 16.5 ft.
25									
30									
35									
40									

Note: 5 in. of asphalt at surface

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1 3/4 in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

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Approximate Change in Strata

Inferred Change in Strata

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

ROUTE:	LOCAL NAME: McKeel Brook Culvert Extension	BORING NO. B-5
SECTION:	Town of Dover & Rockaway Township, Morris County, NJ	FIELD BORING NO.
STATION:	OFFSET:	REFERENCE LINE:
		GROUND ELEVATION: 572.5 ±
BORING BY: Craig Test Boring		DATE STARTED: 5-18-00
INSPECTOR: Charles Linke		DATE COMPLETED: 5-18-00
		GROUND WATER 0 Hr. 7 ft. deep Date: 5-18-00 24 Hr. Date:

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH	Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
				0 / 6	6 / 12	12 / 18			
5	Auger								
	↓	S-1	1	2.5	3	4	7	4"	Orange-brown f SAND, little c-m Gravel, little(+) Silt
10		S-2	5	6.5	13	9	9	12"	Brown c-f SAND, little f Gravel, trace Silt
									<u>Proposed Bottom of Culvert Slab El. 564.0</u>
15		S-3	10	11.5	12	10	10	8"	Orange-brown c-f SAND, little f Gravel, little Silt
20		S-	15	16.5	13	12	9	NR	Bottom of Hole 16.5 ft.
25									
30									
35									
40									

Note: 6 in. of asphalt at surface

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1½ in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

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Approximate Change in Strata _____
 Inferred Change in Strata _____

ROUTE: LOCAL NAME: McKeel Brook Culvert Extension BORING NO. B-6
 SECTION: Town of Dover & Rockaway Township, Morris County, NJ FIELD BORING NO.
 STATION: OFFSET: REFERENCE LINE: GROUND ELEVATION: 573.2 ±

BORING BY: Craig Test Boring

DATE STARTED: 5-18-00

GROUND WATER

0 Hr. 8 ft. deep
24 Hr.Date: 5-18-00
Date:

INSPECTOR: Charles Linke

DATE COMPLETED: 5-18-00

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH	Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
				0 / 6	6 / 12	12 / 18			
5	Auger								
	↓	S-1	1	2.5	6	4	7	NR	
10		S-2	5	6.5	14	28	40	15"	
15		S-3	10	11.5	20	15	16	10"	
20		S-4	15	16.5	13	11	10	10"	
25									
30									
35									
40									

Note: 4 in. of asphalt at surface

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1½ in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

Soil descriptions represent a field identification after DM Burmister
 unless otherwise noted.

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Approximate Change in Strata

Inferred Change in Strata

ROUTE: LOCAL NAME: McKeel Brook Culvert Extension BORING NO. B-7
 SECTION: Town of Dover & Rockaway Township, Morris County, NJ FIELD BORING NO.
 STATION: OFFSET: REFERENCE LINE: GROUND ELEVATION: 572.3 ±

BORING BY: Craig Test Boring DATE STARTED: 5-19-00

INSPECTOR: Charles Linke DATE COMPLETED: 5-19-00

GROUND WATER
 0 Hr. Caved & dry 9 ft. deep Date: 5-19-00
 24 Hr. Date:

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH	Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
				0 / 6	6 / 12	12 / 18			
5	Auger								
	↓	S-1	1	2.5	3	7	5	3"	
10		S-2	5	6.5	36	38	44	10"	
15		S-3	10	11.5	20	24	19	4"	
20		S-4	15	16.5	13	11	12	6"	
25									
30									
35									
40									

Note: 4 in. of asphalt at surface

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1½ in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

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Approximate Change in Strata

Inferred Change in Strata

ROUTE: LOCAL NAME: McKeel Brook Culvert Extension BORING NO. B-8
 SECTION: Town of Dover & Rockaway Township, Morris County, NJ FIELD BORING NO.
 STATION: OFFSET: REFERENCE LINE: GROUND ELEVATION: 572.3 ±

BORING BY: Craig Test Boring			DATE STARTED: 5-18-00			GROUND WATER				
INSPECTOR: Charles Linke			DATE COMPLETED: 5-18-00			0 Hr. 7.5 ft. deep 24 Hr. Date: 5-18-00 Date:				
DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH		Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
					0 / 6	6 / 12	12 / 18			
5	Auger								Brown f SAND, little(+) Silt	
	↓	S-1	1	2.5	6	4	4	8"		
10		S-2	5	6.5	16	15	14	10"	Brown c-f SAND, little f Gravel, little Silt <i>Proposed Bottom of Culvert Slab El. 564.9</i>	
15		S-3	10	11.5	10	12	16	1"	Drove c Gravel in Tip	
20		S-4	15	16.5	8	8	9	12"	Brown c-f SAND, and c-f Gravel, little(-) Silt Bottom of Hole 16.5 ft.	
25										
30										
35										
40									Note: 6 in. of asphalt at surface	

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1 3/8 in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

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Approximate Change in Strata

Inferred Change in Strata

ROUTE: LOCAL NAME: McKeel Brook Culvert Extension BORING NO. B-9
 SECTION: Town of Dover & Rockaway Township, Morris County, NJ FIELD BORING NO.
 STATION: 25+89 OFFSET: 8R REFERENCE LINE: Elm & Berry Street GROUND ELEVATION: 572.9 ±

BORING BY: Craig Test Boring DATE STARTED: 5-19-00

GROUND WATER
 0 Hr. 6 ft. deep Date: 5-19-00
 24 Hr. Date:

INSPECTOR: Charles Linke DATE COMPLETED: 5-19-00

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH	Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
				0 / 6	6 / 12	12 / 18			
5	Auger								
	↓	S-1	1	2.5	8	5	4	3"	
10		S-2	5	6.5	5	9	10	8"	
15		S-3	10	11.5	8	9	11	5"	
20		S-4	15	16.5	5	6	5	15"	
25									
30									
35									
40									

Note: 6 in. of asphalt at surface

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1 3/8 in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

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Approximate Change in Strata

Inferred Change in Strata

ROUTE: LOCAL NAME: McKeel Brook Culvert Extension BORING NO. B-10
 SECTION: Town of Dover & Rockaway Township, Morris County, NJ FIELD BORING NO.
 STATION: 26+95 OFFSET: 9R REFERENCE LINE: Elm & Berry Street GROUND ELEVATION: 573.5 ±

BORING BY: Craig Test Boring DATE STARTED: 5-18-00

INSPECTOR: Charles Linke DATE COMPLETED: 5-18-00

GROUND WATER
 0 Hr. 8 ft. deep Date: 5-18-00
 24 Hr. Date:

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH	Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
				0 / 6	6 / 12	12 / 18			
5	Auger								
	↓	S-1	1	2.5	6	4	3	12"	Orange-brown m-f SAND, little Silt, trace f Gravel
									3
10		S-2	5	6.5	3	3	4	18"	Brown & dark brown Clayey SILT, some(-) m-f Sand (Organics)
									Proposed Bottom of Culvert Slab E1.565.3
									8
15		S-3	10	11.5	4	5	6	18"	Gray c-f SAND, little f Gravel, trace Silt
20		S-4	15	16.5	3	3	3	8"	Tan f SAND, some Silt
									Bottom of Hole 16.5 ft.
25									
30									
35									
40									

Note: 6 in. of asphalt at surface

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1 1/2 in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

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Approximate Change in Strata

Inferred Change in Strata

ROUTE:		LOCAL NAME: McKeel Brook Culvert Extension				BORING NO. B-11	
SECTION:		Town of Dover & Rockaway Township, Morris County, NJ				FIELD BORING NO.	
STATION: 28+45		OFFSET: 8R		REFERENCE LINE: Elm & Berry Street		GROUND ELEVATION: 574.5 ±	
BORING BY: Craig Test Boring				DATE STARTED: 5-18-00		GROUND WATER	
INSPECTOR: Charles Linke				DATE COMPLETED: 5-18-00		0 Hr. 8 ft. deep 24 Hr. Date: 5-18-00	

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH		Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
					0 / 6	6 / 12	12 / 18			
5	Auger									
	↓	S-1	1	2.5	6	6	6	7"	Black & brown c-f SAND, little(-) Silt, trace Gravel	3
10		S-2	5	6.5	2	2	4	18"	Dark gray Clayey SILT (Organics)	8
15		S-3A	10	11.5	4	9	10	18"	Gray m-f SAND, some Silt	
		S-3B							Orange-brown c-f SAND, trace Silt	
									<i>Proposed Bottom of Culvert Slab E. 865.7</i>	
20		S-4	15	16.5	7	9	10	15"	Gray f SAND, little Silt	
25										
30										
35										
40										

Note: 6 in. of asphalt at surface

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1 1/2 in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

Soil descriptions represent a field identification after DM Burmister unless otherwise noted.

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Approximate Change in Strata _____

Inferred Change in Strata _____

ROUTE:		LOCAL NAME: McKeel Brook Culvert Extension				BORING NO. B-12			
SECTION:		Town of Dover & Rockaway Township, Morris County, NJ				FIELD BORING NO.			
STATION: 29+62		OFFSET: 3L		REFERENCE LINE:		GROUND ELEVATION: 574.6 ±			
BORING BY: Craig Test Boring				DATE STARTED: 5-18-00		GROUND WATER			
INSPECTOR: Charles Linke				DATE COMPLETED: 5-18-00		0 Hr. 7 ft. deep		Date: 5-18-00	
24 Hr.		Date:							

DEPTH (ft)	CASING BLOWS	SAMPLE NO.	DEPTH		Blows on Spoon			REC. (in)	SOIL DESCRIPTION AND STRATIFICATION	(ft)
					0 / 6	6 / 12	12 / 18			
5	Auger	S-1	0	1.5	3	1	3	4"	Brown f SAND, some(-) Silt	
	↓									
10		S-2	5	6.5	3	3	3	10"	Dark gray Clayey SILT (Organics)	
									Proposed Bottom of Culvert Slab El. 567.0	
15		S-3	10	11.5	7	8	10	12"	Brown & orange c-f SAND, some(+) Silt	
20		S-4	15	16.5	7	11	12	12"	Brown SILT	
									Bottom of Hole 16.5 ft.	
25										
30										
35										
40										

Nominal I.D. of Auger	4 in.
Nominal I.D. of Split Barrel Sampler	1 1/2 in.
Weight of Hammer on Drive Pipe	NA
Weight of Hammer on Split Barrel	140 lb.
Drop of Hammer on Drive Pipe	NA
Drop of Hammer on Split Barrel	30 in.
Core Size	NA

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Approximate Change in Strata

Inferred Change in Strata

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